

REMARKS

Claims 1, 8-9 and 18 have been amended. Claims 1-3 and 6-18 are pending. The applicant requests reconsideration of claims 1-3 and 6-18 in view of the following remarks.

Claims 1-3, 6-8 and 11 stand rejected under 35 U.S.C. § 103(a) as obvious in view of U.S. Patent Nos. 5,748,342 to Usami (the "Usami" patent) and 6,701,011 to Nakajima (the "Nakajima" patent). Claims 9-10, 12-13 and 18 stand rejected under 35 U.S.C. § 102(b) as anticipated by the Usami patent. Claims 14 and 15 stand rejected under 35 U.S.C. § 103(a) as obvious in view of the Usami patent and U.S. Patent No. 6,004,270 to Urbano. Claim 16 stands rejected under 35 U.S.C. § 103(a) as obvious in view of the Usami patent and U.S. Patent No. 6,508,812 to Williams (the "Williams" patent). And, claim 17 stands rejected under 35 U.S.C. § 103(a) as obvious in view of the Usami patent, the Williams patent, and U.S. Patent No. 5,384,608 to Gersten (the "Gersten" patent). The applicant disagrees, and traverses each of these rejections for the reasons noted below.

CLAIMS 1-3 and 6-8

Claims 1-3 and 6-7 recite a method for selecting a rendering intent, comprising "receiving input selecting a contrast mode from a plurality of contrast modes, wherein each contrast mode specifies a way to simultaneously preview the plurality of rendered images." Claim 8 recites a computer program product implemented to perform the method recited in claim 1. The Examiner rejected claims 1-3 and 6-8 as obvious in view of the Usami and Nakajima patents. The Examiner admits that the Usami patent does not disclose "receiving input selecting a contrast mode," however, argues that the Nakajima patent does. *Office Action* at p. 5. The applicant disagrees.

The word "mode" has several definitions. The definition that is relevant to the way the word is used in claims 1-3 and 6-8 is "a particular form or variety of something." *Webster's Ninth New Collegiate Dictionary*, Merriam-Webster, Inc. (1989). Thus, a contrast "mode" is a particular form or variety of "contrast." The word "contrast" itself has several different meanings. Among them are (i) a "comparison of similar objects to set off their dissimilar

Applicant : Ioana M. Danciu
Serial No. : 09/644,136
Filed : August 22, 2000
Page : 7 of 13

Attorney's Docket No.: 07844-423001 / P387

qualities,” and (ii) the “degree of difference between the lightest and darkest parts of a picture.” *Id.* The definition that is relevant to the way the word “contrast” is used in claims 1-3 and 6-8 is “a comparison of similar objects to set off their dissimilar qualities.” Thus, in reciting “selecting a contrast mode,” claims 1-3 and 6-8 recite selecting a particular form or variety or way of comparing similar objects to set off their dissimilar qualities or differences.

This is disclosed and described, for example, in FIG. 3 of the application. At step 301, FIG 3 discloses that the “Contrast Images” program module receives user input selecting one of two different contrast modes: “Contrast Images or Differences.” The “Contrast Images” mode contrasts or compares a plurality of rendered images (i.e., images obtained by rendering a single image with a plurality of different rendering intents), by simultaneously previewing the plurality of rendered images. By comparison, the “Contrast Differences” mode contrasts or compares the plurality of rendered images by simultaneously previewing a plurality of rendered image differences. Rendered image differences are images that “are constructed between a rendered image and a reference image.” *Specification* at p. 6, ll. 24-25. This is explained more fully in the specification, which indicates that at step 301 the “Contrast Images Module 300 prompts a user to enter input to contrast either rendered images or rendered differences.” *Id.* at ll. 8-9 (emphasis added). The input that is entered by the user at step 301 is the recited contrast mode that is received in claims 1-3 and 6-8. If the user enters the “Contrast Images” contrast mode, then the “Contrast Images Module 300 contrasts the set of rendered images by previewing them.” *Id.* at ll. 9-11. Alternatively, if the user enters the “Contrast Differences” contrast mode, then the “Contrast Images Module 300 . . . contrast[s] [the]set of rendered images by previewing a set of rendered image differences.” *Id.* at ll. 18-21.

The Nakajima patent fails to disclose “selecting a contrast mode” as recited in claims 1-3 and 6-8. Instead, the Nakajima patent discloses “an image processing apparatus, an image processing method, and a storage medium.” *Nakajima* at col. 1, ll. 8-10. Nakajima’s image processing apparatus provides a graphical method for allowing users to select different types of color processing parameters such as the tint of an image, its value, or its contrast. *See, e.g., Id.* at col. 13, ll. 1-2. For example, FIG. 21 of the Nakajima patent discloses a display containing a

Applicant : Ioana M. Danciu
Serial No. : 09/644,136
Filed : August 22, 2000
Page : 8 of 13

Attorney's Docket No.: 07844-423001 / P387

plurality of images that have been rendered using different image contrast / value pairs. The element 114 in FIG. 21 is "a thumbnail for value / contrast adjustment. . . [in which] a current image 115 is placed in the center of the thumbnail . . . [and] the eight images surrounding the current image 115 are varied horizontally in contrast and vertical[ly] in value." *Id.* at col. 16, ll. 24-32. The marking 117 in Fig. 21 is an indicator that the image's "contrast varies in a horizontal direction" from the least contrast (lightest image) on the left, to the most contrast (darkest image) on the right. Thus, in the Nakajima patent the word "contrast" is used to mean the "degree of difference between the lightest and darkest parts of a picture." *See, Webster's Ninth New Collegiate Dictionary, infra.* By contrast, in claims 1-3 and 6-8 the word "contrast" is used to mean a "comparison of similar objects to set off their dissimilar qualities." *See, Id.* Therefore, the Nakajima patent fails to disclose "receiving user input selecting a contrast mode" as recited in claims 1-3 and 6-8, and claims 1-3 and 6-8 are patentable over the combination of the Usami and Nakajima patents for at least this reason.

CLAIMS 9-13 and 18

Claims 9-13 recite a method for selecting a rendering intent comprising "generating a plurality of difference images from [a] plurality of rendered images and a reference image." Claim 18 recites a computer program product implemented to perform the method recited in claim 9. The Examiner rejected claims 9-10, 12-13 and 18 as anticipated by the Usami patent. *Office Action* at p. 2. The Examiner rejected claim 11 as obvious in view of the Usami and Nakajima patents, relying on the Nakajima patent solely for the limitation of simultaneously displaying the plurality of rendered differences by printing them on a piece of paper. *Id.* at p. 7. The applicant disagrees and traverses the rejection,

As claims 9-18 explicitly recite, difference images are images that are generated from a rendered image and a reference image. The specification discloses that difference images can be generated in any number of ways. *Specification* at p. 6, l. 28. For example, they can be generated "by subtracting the color values of a reference image from the rendered image." *Id.* at

Applicant : Ioana M. Danciu
Serial No. : 09/644,136
Filed : August 22, 2000
Page : 9 of 13

Attorney's Docket No.: 07844-423001 / P387

p. 6, ll. 29-30. Alternatively, they can be generated by "computing for each pixel in the image the sum of the squares of the difference between the color values of the associated pixels in the rendered and reference images." *Id.* at p. 7, ll. 1-2. The difference image can be a magnification of the differences between the rendered and reference images obtained "by multiplying the computed differences by a magnification factor." *Id.* at ll. 3-5.

The Usami patent fails to disclose generating difference images from a "plurality of rendered images and a reference image" as recited in claims 9-13 and 18. The Examiner's argument that FIG. 20 of the Usami patent discloses this limitation is misplaced. Usami's FIG. 20 discloses three preview images and the original image from which the preview images were generated. The Examiner argues that because these preview images are "different from each other," they are "difference images." *Office Action* at p. 10. However, the Usami patent clearly discloses that the FIG. 20 preview images are generated by "performing different color space compression processes with respect to the same input image data." *Usami* at col. 8, ll. 62-64. Thus, the images are "rendered" images that are generated from the original image alone (e.g., by rendering it through a color compression algorithm). They are not "difference images" that are generated from a rendered image and a reference image (which could be the original image). As a result, FIG. 20 of the Usami patent fails to disclose "generating a plurality of difference images from [a] plurality of rendered images and a reference image" as recited in claims 9-13 and 18, and claims 9-13 and 18 are patentable over the Usami patent or the combination of the Usami and Nakajima patents for at least this reason.

CLAIMS 14 and 15

Claims 14 and 15 depend from and contain all the limitations of claim 9, and specifically recite that the difference image generated in claim 9 is obtained by "subtracting the reference image from a rendered image," and by "calculating the least squares difference between a rendered image and the reference image," respectively. The Examiner rejected claims 14 and 15

Applicant : Ioana M. Danciu
Serial No. : 09/644,136
Filed : August 22, 2000
Page : 10 of 13

Attorney's Docket No.: 07844-423001 / P387

as obvious in view of the Usami and Urbano patents, relying on the Urbano patent to disclose subtracting one image from another. *Office Action*. at pp. 7-8.

As noted in the applicant's previous response, the Usami patent discloses an image preview function that "simultaneously output[s] images . . . obtained by performing different color space processes for the same input image data." *Usami* at col. 1, ll. 55-60. By contrast, the Urbano patent discloses an "image processing scheme . . . for imaging anatomic structures or vessels which have periodic physiological motion that define physiological cycles." *Urbano* at Abstract. In the Urbano patent, different images of the same moving anatomical structures (taken at different times) are compared. The different images are first subtracted to ensure properly alignment.

To establish a *prima facie* case of obviousness, the Examiner must find motivation to combine the teachings of Usami and Urbano. As before, the Examiner argues that the motivation to combine these references is "to improve the alignment process." *Office Action* at p. 11. However, as previously noted by the applicant, the previewed images in the Usami patent are "obtained . . . for the same input image data." *Usami* at col. 1, ll. 55-60. They are therefore already perfectly aligned, and there is no need to "improve the alignment process" using the image subtraction technique disclosed in the Urbano patent. Consequently, there is no motivation to combine the Urbano and Usami patents, and the Examiner has failed to establish a *prima facie* case of obviousness. Thus, claims 14 and 15 are patentable over the combination of the Usami and Urbano patents for at least this reason.

CLAIMS 16 and 17

Claims 16 and 17 depend from and contain all the limitations of claim 9, and specifically recite that the difference image generated in claim 9 is obtained by "representing the differences between a rendered image and the reference image as a topographical map." Claim 17 further recites that the contours of the topographical map recited in claim 16 "are represented as colors." The Examiner rejected claim 16 as obvious in view of the Usami and Williams patents, and

Applicant : Ioana M. Danciu
Serial No. : 09/644,136
Filed : August 22, 2000
Page : 11 of 13

Attorney's Docket No.: 07844-423001 / P387

rejected claim 17 as obvious in view of the Usami, Williams and Gersten patents. *See, Office Action* at pp. 9-10. In doing so, the Examiner relied on the Gersten patent solely for using colors to represent a topographical map. *Id.*

In rejecting claims 16 and 17, the Examiner admits that the Usami patent does not disclose representing the difference between a rendered image and a reference image as a topographical map. *Id.* at p. 9. Instead, the Examiner argues that this is known in the art as taught by Williams, and argues that it would have been obvious to combine the Usami and Williams patents "because Usami discloses a method of implementing rendering intent by comparing a plurality of resultant images and Williams discloses the caparison [sic] can be presented as difference image and can be a topographical image in order to provide better contrast." *Id.* The applicant disagrees.

For the Williams and Usami patents to be combinable they "must either be in the field of applicant's endeavor, or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 U.S.P.Q.2d 1443, 1445 (Fed. Cir. 1992). The applicant's field of endeavor is "selecting a suitable rendering intent to map the colors of an image created, displayed, or produced in one color gamut for display, production, or reproduction in another color gamut." *Specification* at p. 1, ll. 3-5. By contrast, the field of endeavor of the Williams patent is "refractive laser systems for eye surgery." *Williams* at col. 1, ll. 18-20. The Williams patent is thus not in the applicant's field of endeavor. Nor is the teaching of the Williams patent reasonably pertinent to the particular problem with which the applicant was concerned.

The problem with which the applicant was concerned was how to allow a user to select a suitable rendering intent from among a plurality of rendering intents. The applicant solved that problem by creating a plurality of rendered images or rendered differences, simultaneously displaying the rendered images or differences to a user, and receiving input from the user selecting a rendered image or difference "from among [the] simultaneously previewed rendered images" or differences. *Specification*. at p. 2, ll. 20-22; p. 6, ll. 18-19. Because the plurality of rendered differences "appears mostly black when displayed," the applicant allows the difference

Applicant : Ioana M. Danciu
Serial No. : 09/644,136
Filed : August 22, 2000
Page : 12 of 13

Attorney's Docket No.: 07844-423001 / P387

images to be created as "topographical map[s] of the differences between [the] rendered and reference image[s]." *Id.* at p. 7, ll. 6-10.

The Williams patent is neither concerned with, nor is it addressed to any of the particular problems that confronted the applicant. Instead, the Williams patent is concerned with improving laser eye surgery systems. It does this by considering "the surface topography of the eye . . . along with the refraction correction profile" of the eye that was considered by prior art systems. *Williams* at col. 2, ll. 35-37. The Williams patent corrects for the surface topography of the eye by generating a topographical map representing the difference between the actual eye topography and an idealized eye topography that is generated by fitting the actual topography to a sphere or other suitably idealized shape. *Id.* at col. 15, ll. 13-25. The difference topographical map is then added to the eye's "initial [refractive] correction profile to result in a final correction profile." *Id.* at ll. 29-30. Thus, the Williams patent is not only in a completely unrelated field, but it is not even concerned with (and does not solve) the particular problems that confronted the inventor in the present application. Consequently, the Williams and Usami patents cannot be combined to render the applicant's invention obvious, and claims 16 and 17 are patentable over the improper combination of the Williams and Usami patents.

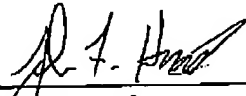
The applicant respectfully submits that all claims are in condition for allowance, which action is kindly requested. No fees are believed due, however, please apply any applicable charges or credits to deposit account 06-1050.

Applicant : Ioana M. Danciu
Serial No. : 09/644,136
Filed : August 22, 2000
Page : 13 of 13

Attorney's Docket No.: 07844-423001 / P387

Respectfully submitted,

Date: December 22, 2004



John F. Horvath
Reg. No. 47,663

Customer Number 021876

Telephone: (302) 652-5070
Facsimile: (302) 652-0607

80021604.doc